

AN UNPUBLISHED DRAWING OF THE PIG-FOOTED BANDICOOT BY JOHN GOULD AND H. C. RICHTER

With Comments on Museum Specimens

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ON the cover of the December 1987 issue of *Australian Zoologist* is an excellent reproduction of a sketch of the Great Red Kangaroo. This was discovered amongst bound volumes of John Gould's original drawings at Knowsley Hall, near Liverpool — once the home of the XIIIth Earl of Derby, who did so much to support faunistic discovery in the early nineteenth century (Fisher 1987). Most of these drawings were published in Gould's great works *A Monograph of the Macropodidae* (1842) and *The Mammals of Australia* (1863) but this particular pose was not used for any of the three Red Kangaroo plates in those volumes. Similarly, no plate was ever prepared from the picture of a pair of young Pig-footed Bandicoots, reproduced on the cover of this issue.

The latter is bound into a volume entitled *Australian Animals, Original Drawings by Gould and Richter* (Knowsley Hall Library NH 8E-11). The sketch is signed "H. C. Richter" on the lower right, beneath which the words "Choeropus castanotis, young, unpublished lithograph" are pencilled in Gould's handwriting. Henry Richter, whom John Gould employed as his chief artistic assistant following the death of his wife Elizabeth, was responsible for many of the finished sketches, but Gould nearly always roughed out the original poses and background and would have advised on the colour plan (McEvey 1976; Sauer 1982).

The drawings are not numbered but this one is the forty-eighth in the volume and directly follows a sketch depicting three Pig-footed Bandicoots (Fig. 1) [see centre spread]. The latter is the drawing actually used for the illustration in *The Mammals of Australia* (Vol. 1, pl. 6); according to Gould's text it depicts two Western Australian animals with an individual from South Australia, greyer in colour, in the centre background. Judging from museum specimens, this is by far the better representation of the species, in addition to illustrating adult animals rather than immatures — which is presumably why Gould used this picture as the basis for the final version.

The Pig-footed bandicoot, *Chaeropus ecaudatus* (Ogilby 1838), first discovered by Surveyor-General Mitchell on the Victoria side of the Murray River in 1836 but now believed to be extinct, was the most dainty of the bandicoot family. (Mitchell's single specimen had lost its tail, hence the specific name.) With only two functional toes on the forefoot, it perhaps behaved rather like a small deer (Strahan 1983) and was once widely distributed in arid Australia. When Gould's assistant, John Gilbert, was on his second visit to Western Australia, he collected a tailed animal which he at first thought to be different from the one Mitchell had discovered. In a letter to Gould in April 1843, he gave a long description of the animal and its habits, from which the following is an extract:

"My specimen was brought from 40 miles north-east of Northam [W.A.], it was started in a white gum forest, and when pursued ran into a hollow stump, from which the Natives captured it; as these Natives were of the York district, they knew nothing of the Animal, but afterwards meeting with some of the tribes of the interior, found it was known to them, who admitted it was very rare; these Natives termed it, *Boor-da*". (Liverpool City Libraries, reference number 920 DER(13) 1/67/7; Fisher 1985).

Gilbert also described the habits of the animal in a document he wrote for Gould entitled *No. 2: Mammals of Western Australia* (now in the Zoology library of the British Museum (Natural History), reference number 89qG: 8/10, page 10). This is one of the Gilbert manuscripts on which Gould relied heavily while writing the text for *The Mammals of Australia*. Gilbert wrote:

"*Chaeropus* —? (No. 33).

"*Bur-da*. Aborigines of the Walyemara district.

"*Wot-da*. Aborigines of the interior from York.

"The only additional information I have to communicate of this interesting animal is that it is confined



Fig. 1. The original sketch for the plate depicting Pig-footed Bandicoots in John Gould's Mammals of Australia; from Knowsley Hall Library, Merseyside, England.



FIG. 3: Grevillea gaudichaudii flower with honey bee Apis mellifera.

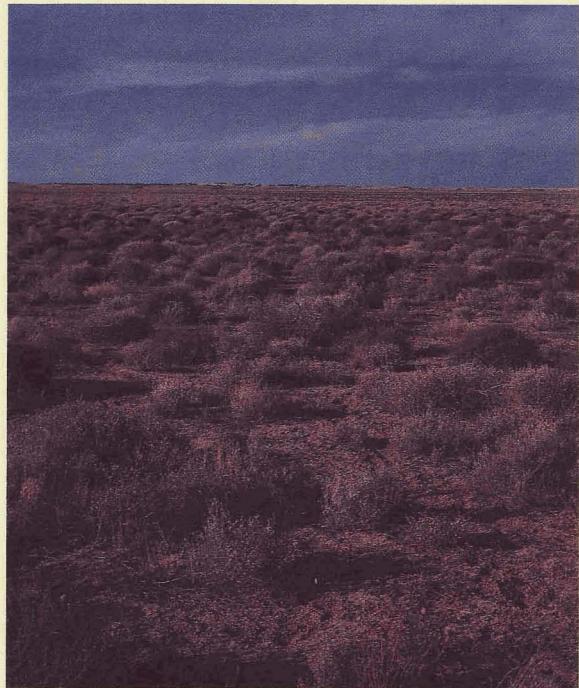


Fig. 4. Area without trees, with perennial Saltbush *Atriplex* and Copperbush *Bassia* of various species. Photo taken at Garnpang station. Photo by G. B. Baker, March 1985.

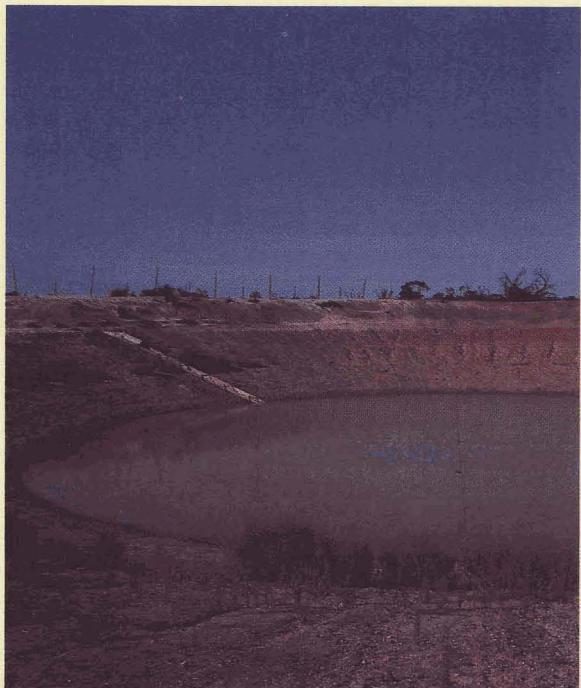


Fig. 5. Everbar Tank in Mungo National Park (as in Fig. 3). Photo by G. B. Baker, March 1985.

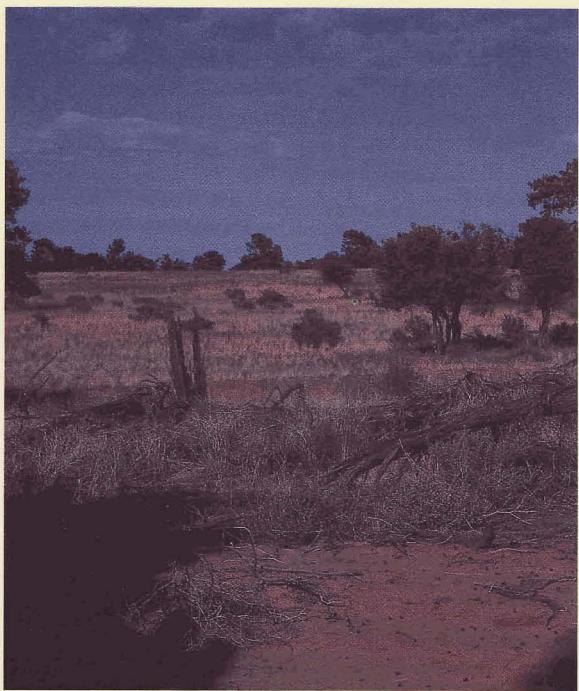


Fig. 6. Open woodland with predominantly Speargrass *Stipa* understorey. Photo by G. B. Baker, March 1985.

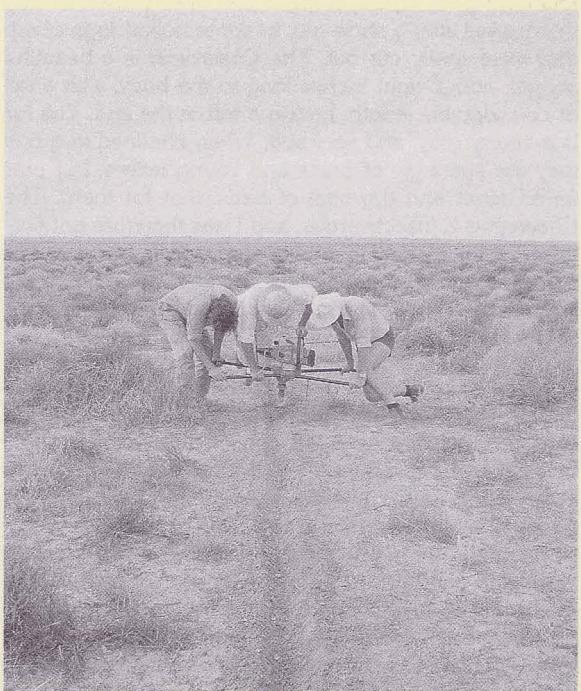


Fig. 7. Setting a pitfall line in perennial Saltbush area, Garnpang Station. Photo by G. B. Baker, March 1985.

to the interior, and that it makes a nest precisely similar to the *P. fusciventer* and *Mal-a* [= *Perameles bougainville*], excepting that there are more leaves; during my last trip to the interior, while pushing through the scrub, I frequently started them out of their nests, but from the closeness of the dense vegetation, I was always unable to either shoot or knock it down."

The individual Gilbert described in his letter of April 1843 is certainly the one purchased from John Gould by the XIIIth Earl of Derby and entered in the Derby stock book as being from "Swan River" (No. 260). Gould stated in *The Mammals of Australia* that "One of the two specimens received from Western Australia is in the collection of the British Museum, the other in that of the Earl of Derby". Lord Derby's collection was bequeathed to the City of Liverpool in 1851, but the Swan River specimen no longer survives in the Liverpool Museum. It was probably destroyed by fire during an air raid in World War II, along with another Pig-footed Bandicoot specimen acquired by Lord Derby from Charles Sturt.

Sturt collected three individuals (two alive) on his expedition into central Australia between 1844 and 1846; the extract from the species appendix to his journal (Sturt 1849, Appendix page 6) runs as follows:

"This animal was first killed on the Darling, but the specimen was destroyed by the dogs. Two of the three were afterwards taken alive in latitude $26\frac{1}{2}$. They were found lying out in tufts of grass, and when roused betook themselves after a short run, to some hollow logs where they were easily cut out. The *Chaeropus* is a beautiful animal, about eight inches long in the body, with a tail of considerable length, having a tuft at the end. The fur is a silvery gray, and very soft. When confined in a box they ate sparingly of grass and young leaves, but preferred meat and the offal of birds shot for them. The *Chaeropus* is insectivorous, and I was therefore not surprised at their taking to animal food, which, however, not agreeing with them, they died one after the other. They squat like rabbits, laying their broad ears along their backs in the same kind of way."

The Gilbert specimen in the British Museum is a female (BMNH 44.7.9.22), from 45 miles NE of Northam, Western Australia, collected in October 1843; at least six months after the individual Gilbert referred to in his letter. As the Liverpool specimen is missing, this is the only survivor of the two syntypes of *Chaeropus occidentalis*, the name Gould gave to the two Western Australian animals in the foreground of plate 6 in *The Mammals of Australia* (Fig. 1). It is evident from his text, however, that Gould was not entirely convinced that these specimens were really taxonomically distinct from the south-eastern form.

Incidentally, Thomas (1888) records the locality of the British Museum syntype as being "Boorda, Kirltana, WA". As Calaby (1954) pointed out, "Boorda" refers to the Aboriginal name for this species. I cannot find where Thomas obtained the word "Kirltana".

Gilbert referred to both his specimens in his notebook on marsupials, a "do-it-yourself" field guide he had produced using a copy of Jardine's *Naturalist's Library*, volume XI (Waterhouse 1841), interleaved with his own handwritten notes and sketches (this is now in the Queensland Museum, Brisbane, see Whittell 1954). Most of these notes were published by John Gould in *The Mammals of Australia*, including a long description of the Pig-footed Bandicoot and its habits. However, Gould omitted Gilbert's remark that he had examined the type of *Chaeropus ecaudatus* and another example collected by Captain Grey in South Australia, both in the Sydney Museum, and had decided his specimens from Western Australia were identical.

Confusingly, Gilbert's notebook describes "The two and only specimens I obtained" as having been "brought in by a party who formed an expedition to the Walyemara district... the first was hunted by the dogs from a small patch of grass and took refuge in a hollow log, from which it was captured." However, from the date of this letter and that on the label of the British Museum specimen, it is evident that the two animals were collected at least six months apart. Both were shipped to Gould by the *Napoleon*, which left Australia in December 1843; the list of marsupials included "2 Chasopus" [sic] (Glauert 1950).

Other examples of *Chaeropus ecaudatus* in the British Museum (Natural History) include two Mitchell specimens collected from Muda, New South Wales during 1847; a skull from the Gregory-Elsey North Australia expedition of 1855-56 and the type of *Chaeropus castanotis* (Gray), collected by Captain Grey in "scrub near the Murray River" (Thomas 1888; Tate 1948). I can trace no other specimens in Britain and, according to Tate (1948), there are none in America.

The type of *C. ecaudatus* was originally in the Australian Museum, Sydney (Krefft 1864; Ogilby 1892) but cannot now be found in the collection. The species' stronghold seems to have been South Australia and its borders with New South Wales and Victoria. Ludwig Krefft of the Australian Museum collected "about eight" on the Murray Plains while on the Blandowski Expedition of 1856-57, but unfortunately confessed to eating his specimens "more than once" (Krefft 1862). Most of the survivors are in the National Museum of Victoria, Melbourne, although one was donated by that institution to the Australian Museum (Krefft 1864; Wakefield 1966). The South Australian Museum has specimens from

Cooper's Creek, from near Ooldea and from the Gawler Ranges (Wood Jones 1923; Troughton 1965).

A Pig-footed Bandicoot found on the west bank of Lake Eyre North in 1907 is the only confirmed record from the twentieth century (Ride 1970; Strahan 1983). One was reputedly killed in 1920 between Miller's Creek and Coward Springs to the south-west of Lake Eyre, and a skin was seen by A. S. Le Souef in 1927 at Rawlinna. Unfortunately, no part of these animals was preserved to provide confirmation of the records (Wood Jones 1923; Ride 1970).

When Krefft was on the Blandowski expedition in 1857, he showed Mitchell's drawing of a (tail-less) Pig-footed Bandicoot to Aborigines near the Murray-Darling junction. They obligingly collected some South Brown Bandicoots, screwed off their tails, and presented the specimens to him. Ronald Strahan.

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REFERENCES

CALABY, J. H., 1954. Comments on Gilbert's notebook on Marsupials. *Western Australian Naturalist* 4: 147-48.

FISHER, C. T., 1985. Two previously unpublished letters with the correct version of a third, from John Gilbert to John Gould. *Australian Zoologist* 22(1): 5-14.

FISHER, C. T., 1987. A previously unpublished drawing by John Gould and H. C. Richter. *Australian Zoologist* 24(2): 115+3 figs.

GOULD, J., 1842. *A monograph of the Macropodidae, or family of kangaroos*. Published by the Author, London.

GOULD, J., 1863. *The mammals of Australia*, 3 vols. Published by the Author, London.

GLAUERT, L., 1950. The development of our knowledge of the marsupials of Western Australia. *J. Roy. Soc. Western Australia*, 34: 115-34.

KREFFT, G., 1862. On the vertebrated animals of the lower Murray and Darling. *Trans. Phil. Soc. New South Wales* (for 1862-65), 1-33.

KREFFT, G., 1864. *Catalogue of mammalia in the collection of the Australian Museum*. Australian Museum, Sydney.

MC'EVEY, A., 1976. John Gould, some unanswered questions. *Books and Libraries at the University of Kansas* 13(2): 5-8.

OGILBY, J. D., 1892. *Australian Museum, Sydney, Catalogue No. 16: Catalogue of the Australian mammals*. Australian Museum, Sydney.

RIDE, W. D. L., 1970. *A guide to the native mammals of Australia*. Oxford University Press, Melbourne.

SAUER, G. C., 1982. *John Gould, the bird man. A chronology and bibliography*. Henry Sotheran, London.

STRAHAN, R., 1983. *The Australian Museum complete book of Australian mammals*. Angus & Robertson, Sydney.

STURT, C., 1849. Narrative of an expedition into Central Australia during the years 1844, 5, and 6. Vol. 11. T. & W. Boone, London.

TATE, G. H. H., 1948. Results of the Archbold Expeditions. No. 60. Studies in the Peramelidae (Marsupialia). *Bull. Am. Mus. Nat. Hist.* 92(6): 317-46.

THOMAS, O., 1888. *Catalogue of the Marsupialia and Monotremata in the collection of the British Museum (Natural History)*. British Museum (Natural History), London.

TROUGHTON, E., 1965. *Furred animals of Australia*, 8th edition. Angus & Robertson, Sydney.

WAKEFIELD, N. A., 1966. Mammals of the Blandowski expedition to North-Western Victoria, 1856-57. *Proc. Roy. Soc. Victoria* 79(2): 371-91.

WATERHOUSE, G. R., 1841. *The naturalist's library. Mammalia: Vol. XI, Marsupialia or pouched animals*. W. H. Lizars, Edinburgh.

WHITTELL, H. M., 1954. John Gilbert's notebook on marsupials. *Western Australian Naturalist* 4: 104-14.

WOOD JONES, F., 1923. *The mammals of South Australia. Part II: The bandicoots and the herbivorous marsupials*. Government Printer, Adelaide.